

UNITED STATES DISTRICT COURT  
DISTRICT OF SOUTH DAKOTA  
SOUTHERN DIVISION

---

UNITED STATES OF AMERICA,

CR 18-40100-KES

Plaintiff,

FACTUAL BASIS STATEMENT

vs.

BLACK HILLS NANOSYSTEMS  
CORPORATION,

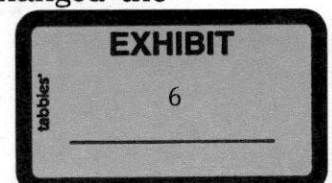
Defendant.

---

The undersigned parties stipulate that the following facts are true and establish a factual basis for the plea in the action pursuant to Federal Rules of Criminal Procedure 11(b)(3):

On May 21, 1998, MicroAssembly Technologies, Incorporated ("MicroAssembly"), by and through its founder, President, and Secretary Wallace Tang, registered as a domestic, for-profit corporation with the California Secretary of State. Effective April 1, 2015, the address for MicroAssembly was 3411 Regatta Boulevard, Richmond, California 94804. In 2014, MicroAssembly also claimed a Fargo, North Dakota, address in state filings in California.

On July 25, 2008, Defendant Black Hills Nanosystems Corporation ("Black Hills Nano"), by and through its President Gina Kim, was registered as a foreign, for-profit corporation with the South Dakota Secretary of State. Black Hills Nano's registered agent for service of process was located in Sioux Falls, South Dakota. Effective January 24, 2011, the address for Black Hills Nano was 2445 Dyess Avenue, Rapid City, South Dakota 57701. On May 2, 2014, Kim changed the



address of Black Hills Nano's principal executive office to 324 St. Joseph Street, Suite 202, Rapid City, South Dakota 57701. Kim applied for, and received, Black Hills Nano's corporate withdrawal on October 20, 2016, listing Black Hills Nano's principal office at an address in San Francisco, California.

MicroAssembly was the parent corporate entity of Defendant Black Hills Nano, and other corporate entities, including Blue Sky Engineering, Incorporated ("Blue Sky"), and Laserlith Corporation ("Laserlith"). Gina Kim served as the Principle Corporate Officer of Defendant Black Hills Nano; Sine Chao served as the Principal Corporate Officer of Laserlith. All of these entities were related and conducted operations in the State and District of South Dakota, affecting interstate commerce.

Although the principals interchanged the names of the entities for various projects, the work of these individuals and entities significantly overlapped. Chao also served as MicroAssembly's Chief Financial Officer and as a former Director. Kim worked as an engineer for MicroAssembly until approximately 2006. While Kim served as Defendant Black Hills Nano's President, Tang served as its Director of Research and Development. While Chao served as Laserlith's President, Tang served as a company Officer and Kim served as its Corporate Secretary until approximately 2008.

The National Science Foundation ("NSF"), the National Aeronautics and Space Administration ("NASA"), and the Department of Energy ("DOE") participated in the Small Business Innovation Research ("SBIR") Program and

Small Business Transfer Technology Research ("STTR") Program through which Defendants sought and obtained federal funds. All SBIR and STTR proposals were required to be electronically submitted to the federal agency offering the grant or contract opportunity. NSF's, NASA's, and DOE's computer servers used to receive contract proposals were located in Virginia, Mississippi and Maryland, and Virginia, respectively. Federal SBIR and STTR grant and contract award payments were electronically transferred from the associated federal agency, through the United States Department of the Treasury, and then wired to a business bank account identified by the Defendants. Defendants also used wires to transmit interstate communications to and from South Dakota.

Beginning in approximately 2012, and continuing through 2016, within the State and District of South Dakota and elsewhere, Defendant Black Hills Nano, at the direction and behest of its principal, Gina Kim, along with others both known and unknown to the Grand Jury and United States, did unlawfully, voluntarily, intentionally, and knowingly conspire, combine, confederate, and agree together and with each other to devise a scheme and artifice to defraud, and obtain money and property by means of false and fraudulent pretenses, representations, and promises, by sending and causing to be sent a sign, signal, and sound to be transmitted by means of wire communications in interstate and foreign commerce, in violation of 18 U.S.C. § 1349. The object of Defendants' conspiracy was to obtain federally-funded projects by and through material misrepresentations, statements, and omissions, thereby depriving the United States the ability to fund other small businesses and resulting in the

enrichment of Defendant Black Hills Nano, of corporate entities MicroAssembly, Blue Sky, and Laserlith, and of individuals Wallace Tang, Sine Chao, and Gina Kim.

In furtherance of the conspiracy and to accomplish the object thereof, Defendant Black Hills Nano and Gina Kim, individually and as executive corporate principal and officer for Defendant Black Hills Nano, did commit the following overt acts, as well as others, in the District of South Dakota and elsewhere, and at all times relevant to this case:

1. Defendant Black Hills Nano and Gina Kim applied for and received federal awards. Defendant Black Hills Nano and Gina Kim communicated with, transmitted proposals through, and received payments by electronic communications and wires. These electronic transmissions and wires were interstate.

2. Defendant Black Hills Nano and Gina Kim applied for and received federal awards for essentially equivalent work, or portions thereof, concealing the existence of the awards and the relationships between related companies from the awarding agencies.

3. During the application process, Defendant Black Hills Nano and Gina Kim misrepresented the existence and use of distinct company facilities, equipment, and operations in South Dakota and North Dakota, and elsewhere outside of California. These representations and statements were false in that all of the companies were co-located in a common facility in Richmond, California,

sharing the same resources and performing essentially equivalent work, or portions thereof.

4. Between 2012 and 2016, Defendant Black Hills Nano and Gina Kim submitted, or caused the submission of, wire transmissions of approximately six (6) false claims containing materially false statements with knowledge of their falsity, solely to obtain federal awards. Between 2012 and 2016, Defendant Black Hills Nano and Gina Kim submitted, or caused the submission of, wire transmissions of approximately twenty-four (24) materially false statements with knowledge of their falsity, solely to obtain federal awards. These false claims and statements are specifically set forth on pages 16 through 21 of this Plea Agreement's Factual Basis Statement. "Knowledge" is defined as being (1) actual knowledge, (2) deliberate ignorance of the truth or falsity of the information, or (3) reckless disregard of the truth or falsity of the information. The term "material" means having a natural tendency to influence, or be capable of influencing, the payment or receipt of money or property.

5. Defendant Black Hills Nano's and Gina Kim's actions, false statements, and misrepresentations included the preparation and submission of proposals for awards under the NSF, NASA, and DOE programs, specifically involving costs, employees, the eligibility of principal investigators, suitability of facilities, location of facilities, subcontractors, consultants, letters of support, and certifications submitted to NSA, NASA, and DOE.



6. Defendant Black Hills Nano's and Gina Kim's actions, false statements, and material misrepresentations resulted in the receipt of payments from the U.S. government. The fraudulently-obtained NSF, NASA, and DOE awards totaled \$1,084,418.60, joint and several between Defendant Black Hills Nano, and corporate entities MicroAssembly, Blue Sky, and Laserlith.

As a result of Defendant Black Hills Nano's and Gina Kim's scheme and artifice to defraud and to obtain money and property by means of false, fictitious, and fraudulent pretenses, representations, and promises relating to material facts, Defendant Black Hills Nano and Gina Kim knowingly presented or caused to be presented false and fraudulent proposals via interstate wire transmissions and unlawfully obtained an award from a federal agency, as set forth below:

<b>Awarding Agency &amp; Year</b>	<b>Awarded Defendant &amp; Amount</b>	<b>Nature of Project &amp; Proposal Number</b>
NSF 2014	Black Hills Nano \$224,946.00	MEMS Reconfigurable Antenna for Portable Wireless Devices regarding proposal number 1417284
NASA 2013	Black Hills Nano \$124,942.77	Low-Cost Multi-Junction Photovoltaic Cells regarding proposal number H8.04-9546
DOE 2012	Black Hills Nano \$146,819.83	Optimal Multijunction Solar Cells for CPV Under Realistic Conditions regarding proposal number 203324

The above awards to Defendant Black Hills Nano amounted to \$496,708.60. NSF award-number 1417284 was terminated when Defendant Black Hills Nano's conduct was discovered. Upon terminating this award, NSF recovered \$74,982.00, thereby bringing the total loss to the United States of \$421,726.60.

This amount represents Defendant Black Hills Nano's portion of the total loss to the United States. Defendant Black Hills Nano's actions were in violation of 18 U.S.C. § 1349.

At all times relevant to the above awards, Gina Kim, acting individually and as executive corporate principal and officer for Black Hills Nano, submitted, or caused the submission of, wire transmissions specifically relating to the proposals with knowledge of materially false statements and representations in the proposals, solely to obtain federal awards for Defendant Black Hills Nano and its related entities from NSF, NASA, or DOE. Furthermore, between 2012 and 2016 and at all times relevant to this case, Gina Kim, acting individually and as executive corporate principal and officer for Defendant Black Hills Nano, submitted, or caused the submission of, wire transmissions of six (6) false claims and twenty-four (24) materially false statements with knowledge of each claim's and statement's falsity, solely to obtain federal awards for Defendant Black Hills Nano and its related entities from NSF, NASA, or DOE, as follows:

<b>Date</b>	<b>Amount</b>	<b>Claim</b>	<b>Description</b>
1/7/2013	\$148,889	DOE SBIR Funding Agreement Certification related to proposal 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions"	False certification or information provided regarding "essentially equivalent work," place of performance of research and research and development which initiated claim.
6/13/2013	\$41,647.66	NASA Initial invoice (#1 for contract number NNX13CC47P "Low-Cost Multi-Junction Photovoltaic Cells")	False information provided regarding "essentially equivalent work" being proposed or funded by another federal entity and



			regarding deliverables not being "submitted under another federal funding award."
9/13/2013	\$41,647.67	NASA Interim Invoice (#2 for contract number NNX13CC47P "Low-Cost Multi-Junction Photovoltaic Cells")	False information provided regarding "essentially equivalent work" being proposed or funded by another federal entity and regarding deliverables not being "submitted under another federal funding award."
11/20/2013	\$5,000.00	Final Patent/New Technology Report Invoice (#4 for contract number NNX13CC47P "Low-Cost Multi-Junction Photovoltaic Cells")	False information provided regarding "essentially equivalent work" being proposed or funded by another federal entity and regarding deliverables not being "submitted under another federal funding award."
11/22/2013	\$36,647.67	NASA Final Invoice (#4 for contract number NNX13CC47P "Low-Cost Multi-Junction Photovoltaic Cells")	False information provided regarding "essentially equivalent work" being proposed or funded by another federal entity and regarding deliverables not being "submitted under another federal funding award."
4/17/2014	\$224,946	NSF SBIR/STTR Funding Agreement Certification for NSF Proposal 1417284 titled STTR Phase I: MEMS Reconfigurable Antenna for Portable Wireless Devices	False Statements made to place of performance and facilities, with this form initiated claim and payments.



Approximate Date	Document	Description
11/29/2012	NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False information provided regarding personnel, facilities, and other proposals.
11/29/2012	NASA Form A - SBIR Proposal Cover Sheet to NASA, related to NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False statement related to: "All, essentially equivalent work or a portion of the work proposed under this project has not been submitted for funding by another Federal Agency."
11/29/2012	NASA Form C - Budget, related to NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False information regarding labor, materials, overhead, and subcontracts
1/7/2013	DOE SBIR Funding Agreement Certification related to proposal 203324, entitled "Optimal Multi- Junction Solar Cells for CPV under Realistic Conditions"	False information provided regarding "essentially equivalent work," primary employment, and facilities.
3/15/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury Automated standard Applications for Payment (ASAP).
4/18/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
5/13/2013	NASA Consolidated Pre and Post-Negotiation Memorandum	False information or statements were provided or made to Government related to personnel,

		labor rates, and subcontract costs.
6/13/2013	NASA Certification with Initial Submitted Invoice related to NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False Statement regarding no "essentially equivalent work" has been proposed to or funded by another Federal Agency.
7/10/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
8/6/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions" and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
8/17/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions" and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
9/3/2013	NASA Certification with Interim Submitted Invoice related to NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False Statement regarding no "essentially equivalent work" has been proposed to or funded by another Federal Agency.
9/27/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions" and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
10/24/2013	DOE proposal number 203324, entitled "Optimal Multi-Junction	False information provided regarding

	Solar Cells for CPV under Realistic Conditions” and related administrative paperwork	personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
11/20/2013	NASA Certification with the New Technology Invoice submitted related to NASA proposal (number H8.04-9546, entitled “Low-Cost Multi-Junction Photovoltaic Cells”)	False Statement regarding no “essentially equivalent work” has been proposed to or funded by another Federal Agency.
11/22/2013	NASA Certification with the Final Invoice submitted related to NASA proposal (number H8.04-9546, entitled “Low-Cost Multi-Junction Photovoltaic Cells”)	False Statement regarding no “essentially equivalent work” has been proposed to or funded by another Federal Agency.
11/23/2013	NASA Final Report related to NASA proposal (number H8.04-9546, entitled “Low-Cost Multi-Junction Photovoltaic Cells”)	False information regarding budget expenditures, personnel, and location.
12/4/2013	NSF Proposal 1417284 titled STTR Phase I:MEMS Reconfigurable Antenna for Portable Wireless Devices	False information provided regarding personnel, facilities and house equipment, place of performance.
1/8/2014	DOE proposal number 203324, entitled “Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions” and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
1/15/2014	DOE proposal number 203324, entitled “Optimal Multi-Junction Solar Cells for CPV under Realistic Conditions” and related administrative paperwork	False information provided regarding personnel and facilities initiated or caused to be initiated a draw down from Department of Treasury ASAP.
4/17/2014	NSF SBIR/STTR Funding Agreement Certification for NSF Proposal 1417284 titled STTR	False Statements made to place of performance and facilities.

	Phase I:MEMS Reconfigurable Antenna for Portable Wireless Devices	
4/17/2014	NSF SBIR/STTR Administrative Questions for NSF Proposal 1417284 titled STTR Phase I:MEMS Reconfigurable Antenna for Portable Wireless Devices	False statements made to task overlap with other proposals, are there affiliated companies, location of significant research.
4/17/2014	Revised Budget for NSF Proposal 1417284 titled STTR Phase I:MEMS Reconfigurable Antenna for Portable Wireless Devices	False statements related to labor and budget cost.
3/13/2015	Resubmitted Final Report to NASA NASA proposal (number H8.04-9546, entitled "Low-Cost Multi-Junction Photovoltaic Cells")	False information regarding budget expenditures, personnel, other Federal funding and location of work.

RONALD A. PARSONS, JR.  
United States Attorney

8/29/18  
Date

Jeremy R. Jehangiri  
Jeremy R. Jehangiri  
Assistant United States Attorney  
P.O. Box 2638  
Sioux Falls, SD 57101-2638  
Telephone: (605)330-4400  
Facsimile: (605)330-4410  
E-Mail: Jeremy.Jehangiri@usdoj.gov

8/17/18  
Date

Gina Kim  
Gina Kim, individually and as executive corporate principal and officer for Black Hills Nanosystems Corporation  
Defendant

8/27/18  
Date

Randy Luskey  
Randy Luskey  
Attorney for Defendant